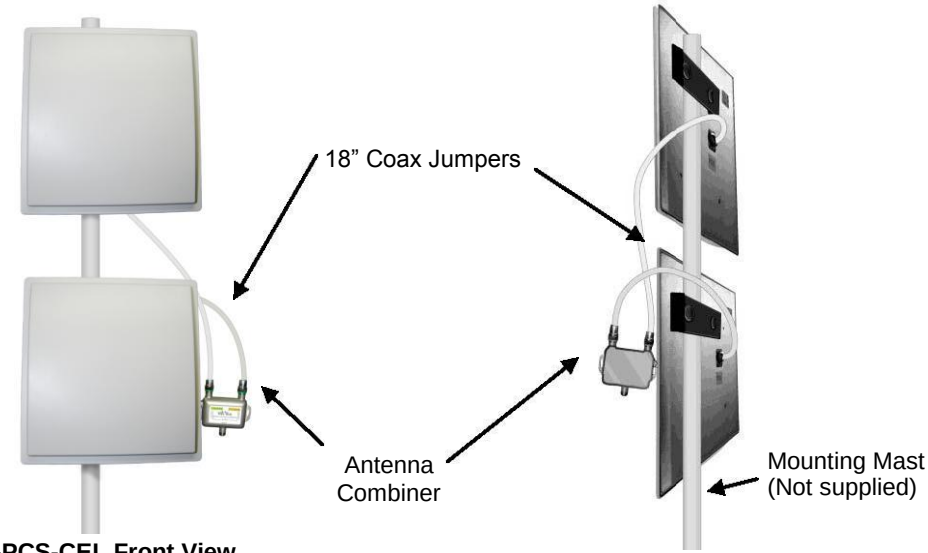
YX039 PCS-CEL Dual Band Signal Antenna Installation Guide

The YX039 PCS-CEL dual band outdoor signal antenna system allows your zBoost cell phone signal booster to provide a larger area of improved indoor signal strength and improve indoor performance where weak outdoor cell signals exist. The antenna operates with signals in both the 800 MHz Cellular and the 1900 MHz PCS bands.

The antenna system consists of two directional panel antennas, one for the Cellular band (800 MHz) and one for the PCS band (1900 MHz). An antenna combiner is included to combine the signals from the two antennas into one coax for connection to the zBoost Base Unit. Two 18" coaxial jumpers are included to connect the each panel antenna to the Combiner.

YX021-CEL
Cellular Panel Antenna
(Note GREEN CEL label on back)

YX023-PCS
PCS Panel Antenna
(Note ORANGE label on back)



YX039-PCS-CEL Front View

YX039-PCS-CEL Rear View

Maximum performance will be achieved when the antenna is aimed at the strongest signal from your wireless provider. If you know the direction of your provider's tower, simply point the antenna in that direction. Note: the closest tower may NOT be used by your provider. If you are unsure of the location of the nearest tower, see ***Antenna Aiming*** below.

Note: Choosing the highest possible point for antenna placement will usually produce the best results. If you do not have roof access, you should choose the side of the building with the strongest signal.

Keep the Antennas at least 3 feet above metal.

Keep the Base Unit unplugged until all cables are connected.

Installation Steps:

1. Once you have determined the location of strongest signal, install an antenna mast or pole (not provided) at that location on which to mount the antennas.
2. Connect the antenna to the mast using the provided brackets loosely enough to allow rotation around mast. Before securing antenna hardware, take care in finding the optimum angle at which to aim the antenna – See ***Antenna Aiming*** Section for further instruction.
3. Connect the coax jumper from the YX021-CEL panel antenna to the connection on the Combiner marked CEL and connect the coax jumper from the YX023-PCS panel antenna to the other Combiner port marked PCS.

4. Connect the RG-6 coax from the Base Unit to the Combiner output port, route coax to the Base Unit indoors and connect the other end of the coax to the Base Unit.

Antenna Aiming:

To get the maximum benefit, you will want to take special care to make sure you point the antennas in the direction of the best signal for your wireless service provider. Note: there will usually be multiple cell carriers on the same cell tower.

1. Place your cell phone on a non-metal surface which is 6-8 feet from the Base Unit Antenna.
2. Turn the signal booster on and wait 30 seconds. Note the number of signal bars displayed on your cell phone. For best results, you want your phone to display in the middle of the signal meter range or less so that it can go up as you rotate the Signal Antenna to the optimum direction. If it is reading too high, move the phone farther from the base unit antenna.
3. Record the number of signal bars (or range) _____(A) on your cell phone. Leave the phone in the same place and pointing in the same direction for the following steps.
   Note the direction of the antenna starting position_____.
4. Rotate the antenna mast 90 degrees and then record the phone signal bars _____(B).
5. Continue to rotate the antenna mast another 90 degrees in the same direction and record the phone signal bars _____(C).
6. Again, rotate the antenna mast another 90 degrees in the same direction and again record the phone signal bars _____(D).
7. Look for the highest reading above. Set the antenna to that position and tighten the antenna mast.
8. If you desire to optimize further, then look for the two highest signal bar readings above and move the antenna between these two points to find the highest signal bars reading.
9. Once you have determined the highest reading position tighten the antenna mast. ***Note: In most situations, both panel antennas will be oriented in the same direction.***

You have now completed the Directional Signal Antenna installation.

Troubleshooting:

- If you have difficulty peaking each antenna, you may not be using the cell phone for the correct band (Cellular or PCS). Try the other cell phone and repeat the steps for that antenna to see if there is a change in signal strength indicated on the cell phone.
- If you get a red light on the Base Unit, you are experiencing reduced performance and may need to improve your installation. Consult the zBoost User Guide for more information on setup.

Dual Band Directional Signal Antenna: YX039-PCS-CEL

This directional antenna system captures signals in both 800 MHz Cellular &1900 MHz PCS bands for the use with zBoost dual-band amplifier systems.

		CEL Band	PCS Band
Frequency		824 -896MHz	1850 – 1990MHz
Gain		8 dBi	13 dBi
Beamwidth		60 degrees	35 degrees
Polarization	Vertical		
Dimension	20”H x 9.75”W x 1”D		
Weight		3.75 lbs	
Connector	Type F - female		
Return Loss	>14dB		
Impedance	75ohms		

